



# AMP3031P SOLID STATE HIGH POWER AMPLIFIER

## FEATURES

Class AB linear LDMOS design  
 Suitable for S-Band long Pulse applications  
 Built-in monitoring and protection circuits  
 Hermetically sealed, high reliability and ruggedness

## ELECTRICAL SPECIFICATIONS

Parameter	Specification			Notes	
Operating Frequency Range	2.7 - 2.9 GHz				
Peak Output Power	1300 Watt Min				
Pulse Characteristics	<b>Width(tp)</b>	<b>Duty(<math>\delta</math>)</b>	<b>PRF</b>	<b>Droop</b>	
	1 - 200 $\mu$ S	10 % Max	-	1 dB Max	
Power Gain	50 dB Nom				
Rise / Fall Time	100 nS Max @ Psat				
Switching Delay Time (Td)	300 nS Typical				
Pulse to Pulse Stability	0.0063 dB / 0.032° Max				
Power Gain Flatness	1.0 dB p-p Max				
Input Return Loss	10 dB Min			Relative to 50 Ohm	
Harmonics	<-40 dBc Typ			At rated Pout	
Spurious	-60 dBc Max			Non-harmonics	
Operating Voltage	50 VDC Nom				
Current Consumption	9.5 Amp Ave / 95 Amp Peak Max			$\delta$ = 10%	
Nominal Input Power	12 dBm Nom				
Load VSWR	5 : 1 Min				

## ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	0 to +60 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	95 % Max	Non Condensing

## MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	300 x 220 x 43 mm	Excluding Connectors
Weight	TBD	Max Weight
RF Connectors In/Out	SMA female / Type-N female	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

## FEED-THRU PIN ASSIGNMENT

Pin #	Function	Description
1	VDD	+50VDC
2	VDD	+50VDC
3	GND	Ground
4	GND	Ground
5	CURRENT SENSOR	I <sub>b</sub> @20mV/100mA Typ
6	TEMP SENSOR	V <sub>T</sub> @10mV/°C + 500mV Typ
7	SHUTDOWN	TTL "Hi" = Disable Function @ 50mS ( <b>Option</b> : 5uS Trigger/Pulse Modulator)

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## OUTLINE DRAWING

